Title (en)

Optical pickup

Title (de)

Optische Abtastvorrichtung

Title (fr)

Tête optique

Publication

EP 0749118 B1 20000823 (EN)

Application

EP 96401271 A 19960612

Priority

- JP 14471495 A 19950612
- JP 15439995 A 19950621
- JP 16663795 A 19950630

Abstract (en)

[origin: EP0749118A2] An optical pickup includes a light source (21) for radiating a light beam, a diffraction element (22) for separating a light beam radiated from the light source into at least three beams, namely a main beam and two side beams, an objective lens (25) for converging the light beams separated by the diffraction element onto a signal recording surface of an optical recording medium (11), a light receiving unit (24) having a four-segment first light receiving portion (71) for receiving the main beam reflected by the recording surface of the optical recording medium and second and third light receiving portions (72, 73) arranged on respective sides of the first light receiving portion (71) for receiving the side beams reflected by the recording surface of the optical recording medium, and a calculation unit (26) for generating one tracking signal based on respective outputs of the first light receiving portion and for generating another tracking signal based on outputs of the second and third light receiving portions. In preferred emodiments of the apparatus, a disc discrimination unit sends a detection output of the optical disc both to the changeover switch selecting the desired tracking error signal and to an aperture ratio variable control unit.

IPC 1-7

G11B 7/09; G11B 7/00

IPC 8 full level

G11B 7/09 (2006.01); **G11B 7/135** (2012.01); **G11B 19/12** (2006.01); G11B 7/00 (2006.01)

CPC (source: EP KR US)

G11B 7/0901 (2013.01 - EP KR US); **G11B 7/1372** (2013.01 - EP KR US); **G11B 7/1381** (2013.01 - EP KR US); **G11B 7/139** (2013.01 - EP KR US); **G11B 19/12** (2013.01 - EP US); **G11B 19/128** (2013.01 - EP KR US); G11B 2007/0006 (2013.01 - EP KR US); G11B 2007/0013 (2013.01 - EP KR US)

Cited by

EP0895228A3; DE10116750B4; SG90761A1; EP0895227A1; EP0779613A3; US6018510A; EP0871162A3; EP1091351A4; EP1258870A3; EP1764785A3; US6205094B1; US7009918B2; US7142485B2; EP0766234B1

Designated contracting state (EPC)

AT DE ES FR GB IT NL

DOCDB simple family (publication)

EP 0749118 A2 19961218; **EP 0749118 A3 19971105**; **EP 0749118 B1 20000823**; AT E195829 T1 20000915; AU 5580796 A 19970102; AU 714000 B2 19991216; BR 9602750 A 19980908; CA 2178685 A1 19961213; CN 1103991 C 20030326; CN 1148236 A 19970423; DE 69609902 D1 20000928; DE 69609902 T2 20010322; ES 2149435 T3 20001101; KR 100464762 B1 20050503; KR 970002934 A 19970128; MX 9602266 A 19971031; MY 116529 A 20040228; US 2001019520 A1 20010906; US 6222803 B1 20010424; US 6366543 B2 20020402

DOCDB simple family (application)

EP 96401271 A 19960612; AT 96401271 T 19960612; AU 5580796 A 19960606; BR 9602750 A 19960612; CA 2178685 A 19960610; CN 96110302 A 19960612; DE 69609902 T 19960612; ES 96401271 T 19960612; KR 19960020690 A 19960611; MX 9602266 A 19960610; MY PI9602310 A 19960607; US 66145996 A 19960611; US 81979401 A 20010329